

II. AMENDMENT TO CLAIMS

Claims 1-19. (Cancelled)

Claim 20. (New) An isolated nucleic acid comprising a nucleotide sequence selected from the group consisting of:

- (a) the nucleotide sequence as set forth in SEQ ID NO: 1;
- (b) a nucleotide sequence encoding the polypeptide as set forth in SEQ ID NO: 2;
- (c) a nucleotide sequence fully complementary to (a) or (b).

Claim 21. (New) An isolated nucleic acid comprising a nucleic acid sequence that is at least 90% identical to the sequence of the nucleic acid sequence of claim 20 and encodes a polypeptide that has O-succinylbenzoic acid CoA ligase activity.

Claim 22. (New) An isolated nucleic acid comprising a nucleic acid sequence that is at least 95% identical to the sequence of the nucleic acid sequence of claim 20 and encodes a polypeptide that has O-succinylbenzoic acid CoA ligase activity.

Claim 23. (New) An isolated nucleic acid that encodes a polypeptide that has O-succinylbenzoic acid CoA ligase activity and hybridizes to the complement of the nucleic acid of claim 20 under the following stringent conditions: a final wash in 0.1X SSC at 68°C.

Claim 24. (New) A vector comprising the nucleic acid of claim 20, 21, 22, or 23.

Claim 25. (New) The vector of claim 24, wherein said vector is an expression vector.

Claim 26. (New) The vector of claim 25 that is an integration vector pCR.1menEint, having

- (a) an internal fragment of the menE gene 520 bp in size; and
- (b) a restriction map as set forth in Fig. 1.

Claim 27. (New) The vector of claim 26 wherein the vector has been deposited in the *E. coli* strain Top10/pCR2.1menEint under accession no. DSM 14080.

Claim 28. (New) A host cell comprising the vector of claim 25.

Claim 29. (New) The host cell of claim 28 that is a prokaryotic cell.

Claim 30. (New) An isolated nucleic acid consisting of SEQ ID NO: 1 or a fragment thereof and encoding a polypeptide that has O-succinylbenzoic acid CoA ligase activity.

Claim 31. (New) An isolated nucleic acid consisting of a fragment of at least 40 consecutive nucleotides of SEQ ID NO:1 or the full complement thereof.

Claim 32. (New) The isolated nucleic acid of claim 31, wherein said fragment is a primer or probe.

Claim 33. (New) A vector comprising the nucleic acid of claim 30.

Claim 34. (New) The vector of claim 33, wherein said vector is an expression vector.

Claim 35. (New) A host cell comprising the vector of claim 33.

Claim 36. (New) The host cell of claim 35 that is a prokaryotic cell.